



## Multiplex Gastrointestinal Pathogen Panels: Implications for Infection Control.

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This study used the FilmArray® Gastrointestinal (GI) Panel to test 158 stool samples that had previously tested negative for *Clostridium difficile* and/or rotavirus by conventional methods (Cepheid testing was used for *C. difficile*, and rotavirus testing was performed using the ImmunoCardStat! Rotavirus assay).

Specimens were obtained from 137 adults and 21 children in an acute hospital inpatient setting between February and December 2013. Specimens were frozen in a volume of 1 mL at -70 °C until studied.

Overall, 35/158 (22.2%) of patients had at least one infectious agent identified by the FilmArray® GI Panel that was not detected by standard testing for *C. difficile* and/or rotavirus. The majority of these unsuspected infectious agents were norovirus, rotavirus, and enteropathogenic *E. coli* (EPEC). Of these patients, 60% were never placed in appropriate isolation for a total of 109 patient-days. The study also found that 20.3% of patients with negative FilmArray® GI Panel results could have been removed from isolation.

Results of this study show that use of multiplex GI panels may lead to more rational patient isolation that could likely lead to lower rates of nosocomial transmission of many GI pathogens.

*“Use of multiplex gastrointestinal panels may improve decisions regarding patient isolation and reduce nosocomial transmission.”*

### KEY POINTS

- The FilmArray® GI Panel allows detection of unsuspected infections.
- The FilmArray® GI Panel may lead to better isolation practices by identifying patients who may need isolation and identifying those who could be removed from isolation.
- The FilmArray® GI Panel may help identify clusters of patients involved in nosocomial spread.